

# **2004 TRANSPORTATION NEEDS REPORT**

## **An Element of the King County COMPREHENSIVE PLAN 2004**

### **INTRODUCTION**

The Transportation Needs Report (TNR) is a long-term, comprehensive list of recommended improvements to serve unincorporated King County's transportation needs. It includes transportation needs in unincorporated King County and significant projects in cities, adjacent counties, and on state highways. The transportation needs are those currently known (existing) as well as those that are forecast due to regionally-adopted targets for growth and development.

The TNR is a functional plan of the King County Comprehensive Plan 2004. Together with the Roads Six-Year CIP and the Roads annual budget, it fulfills the requirement of growth management legislation (RCW 36.70A.070) for a transportation capital facilities plan element of the King County comprehensive plan. The TNR was prepared consistent with all requirements of growth management legislation including:

1. It is based on the land use element of the comprehensive plan.
2. Its list of transportation needs and recommended improvements was developed using travel demand forecasts that are based on the regionally-adopted growth targets.
3. It includes a financial analysis that reflects the most recent land use changes, project amendments, costs, and financial revenue assumptions.

The TNR horizon year is 2022, which is consistent with regionally-adopted targets for population and employment growth.

The schedule for updating the TNR has been changed to coordinate with major updates to the Comprehensive Plan. Starting with TNR 2004, the update cycle will coincide with the four-year, comprehensive plan major amendment cycles. In future years, the TNR will be transmitted to Council for adoption with the comprehensive plan amendments instead of following later as has been the custom. If circumstances warrant, interim updates will be developed and transmitted with the annual comprehensive plan technical amendments. The next anticipated update to the TNR will be in 2006 and will incorporate additional project prioritization process improvements to be developed over the next two years.

### **To Obtain Copies of the TNR**

Copies of the adopted TNR are available for use in all King County Library System branch libraries. Please see <http://www.kcls.org> for the nearest branch location. The document is available for purchase at the offices of the King County Road Services Division. Please call 206-296-6590 for more information. The complete TNR is also available on the Internet at the following address: <http://www.metrokc.gov/kcdot/ROADS/planning/tnr/2004>

## **PURPOSE**

The TNR serves the following purposes:

**Relationship to King County Comprehensive Plan 2004:** A primary purpose of the TNR is to fulfill certain requirements of state growth management legislation for comprehensive planning. These requirements as outlined in state legislation (RCW 36.70A.070 (6)) are:

1. Specific actions and requirements for bringing into compliance locally-owned transportation facilities or services that are below an established level of service standard;
2. Forecasts of traffic for at least ten years based on the adopted growth targets and land use plan to provide information on the location, timing, and capacity needs of future growth;
3. Identification of state and local system needs to meet current and future demands;
4. An analysis of funding capability to judge needs against probable funding resources;
5. A multiyear financing plan based on the needs identified;

The TNR needs list and financial analysis fulfill these requirements. The needs list was developed using forecasts of traffic for the 2022 horizon year based on regionally-adopted growth targets and the land use element of the King County Comprehensive Plan 2004.

**Transportation Planning and Funding:** The TNR helps King County make decisions on planning and funding of transportation improvements. It provides guidance based on policies, strategies, and actions set forth in the comprehensive plan and the Roads Strategic Plan. It follows established processes linking land use planning with transportation needs.

The TNR plays a significant role in evaluating the difference between identified transportation needs and future expected revenues for King County. This analysis assesses the County's ability to keep pace with the demands of growth and assists in developing financial strategies to deal with unmet needs.

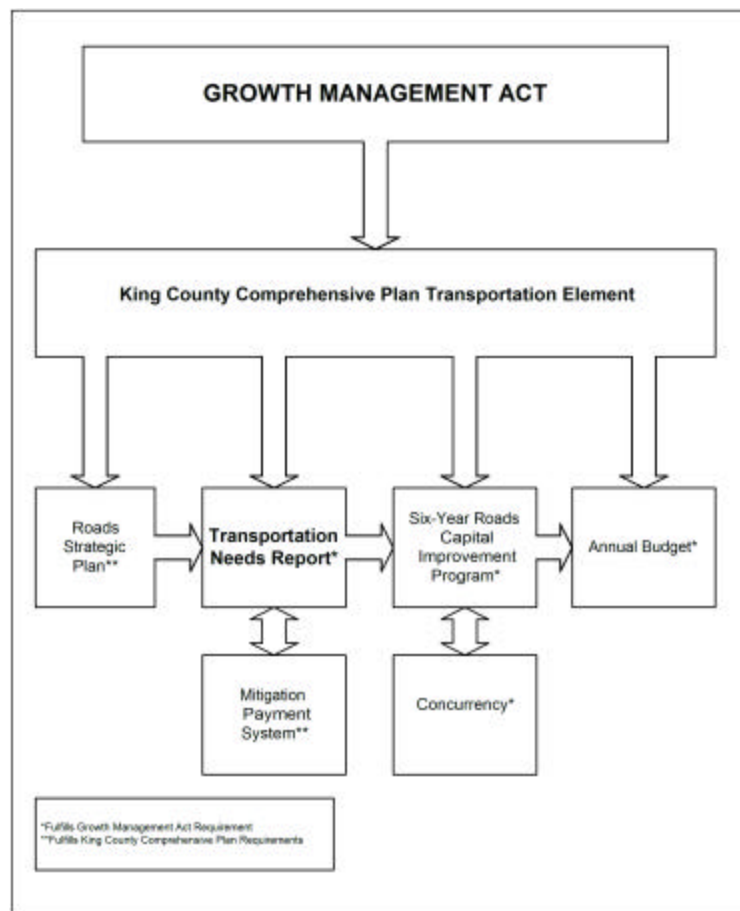
**Coordination:** The TNR helps to coordinate transportation improvements connecting King County with other jurisdictions including the Washington State Department of Transportation (WSDOT), adjacent cities, and counties. It also helps coordination between different divisions of the King County Department of Transportation. By clearly showing the location and scope of intended transportation improvements as well as the priority of these improvements, the TNR provides other jurisdictions with information to use in appropriately coordinating project implementation. Additionally, the private sector development community can use the TNR to identify areas where future growth could be accommodated by improved facilities.

**Development Review:** The TNR serves as a major source of information in the review of proposed land developments and in determining appropriate mitigation measures required as a condition of new development approval. The County's Mitigation Payment System (MPS) uses the TNR to identify growth projects that will be part of the impact fee system.

**Road Vacation:** Property owners can petition King County to have portions of the County's unused road rights-of-way sold to them if the property is not needed for current or future transportation purposes. The TNR is used to indicate the location of future projects on the road system in this road vacation process.

## **PROCESS**

The development of the TNR is part of a comprehensive planning process that is guided by state growth management legislation. This process, as depicted in the flow diagram, links the guidance of the King County comprehensive plan and the Roads Strategic Plan with the development of the TNR, the six-year Roads capital improvement program, and the Roads annual budget. The mitigation payment system, which is authorized by growth management legislation and required by King County ordinance, is used to collect impact fees to help build road capacity projects needed to support growth. Projects receiving MPS funding are included in the TNR. The concurrency program, which is required by growth management legislation, tests proposed development to make sure road capacity needed to support future growth will be available when needed. If a project needed to support the travel needs of a proposed development is included in the Roads six-year capital needs program and if other requirements are met, the proposed development may be granted a concurrency certificate to proceed with permit application.



## **DEVELOPMENT OF THE 2004 TNR**

This update marks the first time the TNR was completed under the direction of the Road Services Division since enactment of state growth management legislation. The document and processes have been changed to meet the business needs of this organization and the geographic area it serves.

The approach to developing the 2004 TNR is based on needs assessment. Capacity needs were analyzed using travel demand forecasting methodology. Non-capacity needs were analyzed using prioritization processes developed for groups of like projects. The resulting capacity and non-capacity needs were subjected to a financial analysis to develop a financially-constrained program of needs.

An initial screening analysis was undertaken to eliminate from detailed analysis projected potential improvements that are no longer considered to be feasible. This comprehensive screening analysis will not be included with subsequent TNR updates unless determined beneficial due to changing conditions.

### **Screening**

Needs were originally identified from a number of sources. These include past community plans, functional plans (such as the Nonmotorized Plan), and transportation planning done for the Comprehensive Plan. Needs were identified many years ago and do not necessarily fit well with current needs and conditions. Development and changes to environmental requirements have significantly affected the feasibility of some potential improvements. For these reasons, capacity needs as identified in the 2001 TNR were subjected to an initial screening process to eliminate those that were clearly not feasible and to collect up-to-date field information that could be used to refine scopes.

The screening process included:

1. GIS analysis to identify projects with environmental or topographic problems and to identify projects that could have significant impacts to cultural resources.
2. Additional project analysis based on engineering expertise
3. Field review of projects for scope verification, cost estimating, and identification of environmental constraints and challenges.

Potential improvements considered likely to be infeasible were screened out, and the remaining potential projects were subjected to more detailed analysis through the prioritization process.

### **Prioritization Process**

A new prioritization process was used to develop the 2004 TNR. It recognizes and uses existing prioritization processes developed for various categories of non-capacity needs including

guardrail, pedestrian, bridge, etc. The travel demand forecasting model was used to identify and analyze the capacity needs required to meet the growth targets and policies of the comprehensive plan. Summaries of the prioritization processes for capacity and non-capacity projects are included in Appendix C.

A corridor approach was followed to develop the combined program of capacity and non-capacity needs. The resulting needs were then subjected to a financial analysis to produce the financially-constrained list of improvements for the horizon year 2022. The financial analysis was based on revenue projections for the horizon year consistent with requirements of growth management legislation.

### **Financial Analysis**

A financial analysis was developed to balance projected needs with anticipated revenue. Revenues were projected to the horizon year for the Road Fund, Federal, State, and MPS revenues. Revenues were adjusted to take into account the annexation of the 10 major potential annexation areas (PAA). These major PAAs are anticipated to be annexed by 2010.

After the final annexation in 2011, property taxes were assumed to grow at 2% per year (1% statutory growth rate plus 1% new construction). Gas taxes were assumed to decline each year by about \$50,000 annually to represent the effect of annexations.

Projected needs were expressed in constant 2004 dollars and were totaled for the TNR program through the year 2022.

Comparing projected revenues with projected needs reveals a shortfall of \$525,241,000.

### **Financial Shortfall**

The shortfall is calculated by subtracting the total projected needs by total projected revenues for the TNR time period. Recent TNRs show increasing growth of the financial shortfall:

<b><u>TNR</u></b>	<b><u>Amount of Shortfall</u></b>
1998	\$254 million
1999	\$227 million
2000	\$292 million
2001	\$388 million
2004	\$525 million

The financial shortfall is an indication of King County's ability (or lack of ability) to serve the unincorporated area. This shortfall must be addressed by delaying improvements or by finding new sources of revenue or by some combination of the two strategies.

There are several methods available to address this shortfall. Additional revenue sources could be pursued. Implementation of needed improvements could be phased or delayed. Future development could be delayed, phased, or scaled back to assure the timely availability of needed

infrastructure. These and perhaps other strategies will be employed and incorporated into future TNRs, CIPs, and budgets to balance needs with available revenues.

## **NEEDS LIST**

Needs are grouped in this document by corridor and by geographic areas. Geographic areas are based on King County sub-areas as follows:

- 1) Bear Creek
- 2) East King County
- 3) East Sammamish
- 4) Enumclaw
- 5) Federal Way
- 6) Incorporated Cities (Seattle, eastside suburban cities and Green River Valley cities)
- 7) North Highline/West Hill
- 8) Newcastle
- 9) Northshore
- 10) Snoqualmie Valley
- 11) Soos Creek
- 12) Tahoma/Raven Heights
- 13) Vashon Island

Corridors were selected by visual examination of geographic plots of needs. Those that did not seem to naturally fall into corridors were categorized as miscellaneous. The needs were listed by corridor to highlight opportunities to achieve efficiencies by coordinating implementation of related projects.

## **Finding a project need**

There are a number of ways to find identified needs. To find an identified need quickly, turn to the appropriate geographic area of the county and look up the need by corridor. If it is outside of a designated corridor, look in the miscellaneous corridor group.

If you know the geographic area, use the maps to find the project or projects you are looking for and note the project number. Then go to the Project Index and find the page number for the appropriate project number. If you know the name of the street you are interested in, find the street name in the Project Index - Alphabetical Index and go to the indicated page number.